^{109}Ag(^{3}He,d) 1972Au05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113, 1315 (2012)	1-Aug-2011

E(^{3}He)=27 MeV. The beam was provided by the Oak Ridge isochronous cyclotron. The deuteron spectra with 25-30 keV resolution were recorded on photographic emulsions placed at the focal plane of a broad-range magnetic spectrograph. Measured: $\sigma(\theta,E(d))$, θ=7° to 40°, FWHM≈25-30 keV. DWBA analysis.
$J^{\pi}(^{109}Ag)=1/2^{-}$.

^{110}Cd Levels

E(level)[†]	J$^{\pi}$[#]	L[‡]	S[@]	Comments
0.0	$0^+,2^+$	1	0.75	
655 *3*	$0^+,1^+,2^+$	1	0.21	
1470 *7*	$0^+,1^+,2^+$	1	0.045	
1538 *8*				
1730 *9*	$0^+,1^+,2$	1	0.053	
1770? *9*				
2076[&] *10*				Unresolved doublet. For L=1 member C^2S'=0.032 ($J^{\pi}=0^+,1^+,2^+$), for L=2 member C^2S'=0.053 ($J^{\pi}=1^-,2^-,3^-$).
2279 *11*	$(0^+,1^+,2^+)$	(1)	(0.008)	
2346[a] *12*	$(0^+,1^+,2^+)$	(1)	(0.065)	
2477[&] *12*				Unresolved doublet. For L=(1) member C^2S'=(0.023) ($J^{\pi}=(0^+,1^+,2^+)$), for L=2 member C^2S'=0.067 ($J^{\pi}=1^-,2^-,3^-$).
2538 *13*	$4^-,5^-$	4	0.41	
2570? *13*				
2652[&] *13*				Unresolved doublet. For L=0 member C^2S'=0.019 ($J^{\pi}=0^-,1^-$), for L=4 member C^2S'=0.68 ($J^{\pi}=4^-,5^-$).
2754[&] *14*				Unresolved doublet. For L=(1) member C^2S'=(0.007) ($J^{\pi}=(0^+,1^+,2^+)$), for L=2 member C^2S'=0.015 ($J^{\pi}=1^-,2^-,3^-$).
2973[a] *15*				
3102[a] *15*				
3169[a] *16*	$(0^+,1^+,2^+)$	(1)	(0.075)	
3247[&] *16*				Unresolved doublet. For L=(2) member C^2S'=(0.011) ($J^{\pi}=(1^-,2^-,3^-)$), for L=4 member C^2S'=0.40 ($J^{\pi}=3^-,4^-,5^-$).
3329[a] *17*	$(1^-,2^-,3^-)$	(2)	(0.16)	
3410 *17*	$1^-,2^-,3^-$	2	0.08	
3460[&] *17*				Unresolved doublet. For L=(2) member C^2S'=(0.02) ($J^{\pi}=(1^-,2^-,3^-)$), for L=(4) member C^2S'=(0.04) ($J^{\pi}=(3^-,4^-,5^-)$).
3517 *18*	$0^-,1^-$	0	0.068	
3614 *18*	$0^-,1^-$	0	0.13	
3658[&] *18*				Unresolved doublet. For L=(0) member C^2S'=(0.049) ($J^{\pi}=(0^-,1^-)$), for L=2 member C^2S'=0.29 ($J^{\pi}=1^-,2^-,3^-$).
3736[&] *19*				Unresolved doublet. For L=(0) member C^2S'=(0.09) ($J^{\pi}=(0^-,1^-)$), for L=2 member C^2S'=0.39 ($J^{\pi}=1^-,2^-,3^-$).
3812 *19*	$1^-,2^-,3^-$	2	1.1	
3897 *19*	$0^-,1^-$	0	0.057	
3950 *20*		(3,4)		

[†] From 1972Au05. ΔE is estimated to be less than 0.5% by the authors.
[‡] From comparison of measured angular distributions with zero-range DWBA calculations using JULIE code in 1972Au05.
[#] From L-values in 1972Au05.

Continued on next page (footnotes at end of table)

^{109}Ag(^{3}He,d) 1972Au05 (continued)

^{110}Cd Levels (continued)

@ From $C^2S' = C^2S(2J_f+1)/(2J_i+1) = \sigma_{exp}/4.42\sigma_{DWBA}$ (where $J_i=1/2$), assuming $j_p=3/2$, 5/2, 9/2 for $l_p=1,2,4$, respectively, except for $j_p=1/2$ for the g.s.

& Component of unresolved doublet.

a Unresolved doublet.